

APPENDIX D

TEST PROCEDURES AND PERFORMANCE CRITERIA

Appendix D is a partial list of the testing procedures and performance criteria required by the Minimum Property Standards.

500 GENERAL

A WALL ASSEMBLIES AND SHEATHING MATERIALS - RESISTANCE TO RACKING

A-1 Test Procedures. Test of Walls shall be conducted in accordance with ASTM E 72-80, "Standard Methods of Conducting Strength Test of Panels for Building Construction." Panel size shall be 8 ft by 8 ft.

A-2 Performance Criteria. The following criteria shall apply:

a. Dry Tests

Load increments-----400 lb
 Maximum load-----5200 lb or 0.65 kips/ft
 At load of-----1200 lb average total
 deflection 0.20 in.
 Residual deflection 0.10 in.
 At load of-----2400 lb average total
 deflection 0.60 in.
 Residual deflection 0.30 in.

b. Wet Tests

Load increments-----400 lb
 Maximum load-----4000 lb or 0.50 kips ft
 At load of-----1200 lb average total
 deflection 0.28 in.
 Residual deflection 0.14 in.
 At load of-----2400 lb average total
 deflection 0.80 in.
 Residual deflection 0.40 in.

508 DOORS, WINDOWS AND GLAZING

A WINDOWS AND SLIDING GLASS DOORS - AIR INFILTRATION

A-1 Test Procedure. Air leakage shall be tested in accordance with ASTM E 283-91.

A-2 Performance Criteria

- A. When tested at a static air pressure of 1.567 psf, the rate of air leakage shall not exceed 1/2 cfm per ft of crack length. Air leakage for jalousie windows is not to exceed 1 1/2 cfm per sq. ft. of total ventilating areas. Air leakage for sliding glass doors is not to exceed 1 cfm per sq. ft. of overall frame dimension.
- b. In areas subject to winds (90 mph and over) the performance requirement for sliding glass doors may be increased at the discretion of the HUD Field Office so that the air leakage will not exceed 1/2 cfm per sq. ft. of overall frame dimension.

B WINDOWS AND SLIDING GLASS DOORS - WATER RESISTANCE

B-1 Test Procedure. Water infiltration shall be tested in accordance with ASTM E 331-86.

B-2 Performance Criteria

- a. Minimum Performance - No water shall pass the interior face of the unit when tested at a static pressure of 2.86 psf with water applied at the rate of 5.0 U.S. gal. per sq. ft. per hour for a time period of 15 minutes.
- b. In areas subject to wind driven rain (90 mph and over) the static pressure in (a) may be raised to 6.24 psf at the discretion of the HUD Field Office.

C WINDOWS AND SLIDING GLASS DOORS - PHYSICAL LOAD

C-1 Test Procedure Physical load tests shall be conducted in accordance with ASTM E 330-90.

C-2 Performance Criteria

a. Minimum Performance

- (1) Under a uniform load of 10 psf applied to surface of unit, except jalousie windows and sliding glass doors, max. deflection of any member shall not exceed 1/175 of its span.
- (2) Under a uniform load of 20 psf applied for 10 seconds to the ext., then a uniform load of 10 psf applied to the int. for 10 seconds, there shall be no glass breakage, damage to hardware or residual deflection.

- b. In areas subject to winds 90 mph and over, the uniform loads, shown in a. (2) may be increased to 40 psf exterior and 20 psf interior loadings, at the discretion of the HUD Field Office.